

ABSTRACT

In one embodiment of the invention, an optical attenuation device has an input/output
6 on which a multiplexed optical input stream is received. A multiplexer/de-
5 multiplexer (MUX/DEMUX) 2 separates the received stream into individual optical
signals on individual channels and has an output/return path 12 from the
MUX/DEMUX 2 for each of the channels. Reflector means 4 in each output/return
path 12 reflects all or a proportion of the optical signal on the respective channel
back along the output/return path 12 to the MUX/DEMUX 2. At the MUX/DEMUX,
10 the optical signals are combined into a multiplexed stream which is output on the
input/output 6. In an alternative embodiment, the device has first and second
MUX/DEMUX 2, 20, an output path 12 from the first MUX/DEMUX 2, attenuation
means 40 at the end of each output path 12 and return paths 120 from the attenuation
means 40 to the second MUX/DEMUX 20. The attenuation means attenuates the
15 optical signals on the respective channels, and the attenuated signals are combined
into a multiplexed stream at the second MUX/DEMUX 20. Both embodiments
achieve attenuation of multiplexed optical streams by attenuating the component
optical signals of the stream in parallel.

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